

In re Application of: Wagener et al.  
Confirmation No: 1454  
Application No.: 10/718,764  
Examiner: PENG, Kuo Liang  
Page - 2 -

Amendments to Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

1. (Withdrawn) A molecule comprising a polymer comprising the structure:



wherein A is a carbosilane comprising a latent reactive group bonded to Si, B is a carbosiloxane, x is an integer greater than or equal to 1, and y is an integer greater than or equal to 1.

2. (Withdrawn) The molecule of claim 1, wherein the latent reactive group is a hydrogen, an alkoxy group, a phenoxy group, or a halogen atom.

3. (Withdrawn)) The molecule of claim 2, wherein the latent reactive group is a methoxy group.

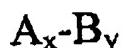
4. (Withdrawn) The molecule of claim 1, wherein the carbosilane has the structure:  
wherein R is a latent reactive group, R<sub>1</sub> is a hydrocarbon chain containing at least one carbon, and z is an integer greater than or equal to 1.

5. (Withdrawn) The molecule of claim 1, wherein the carbosiloxane has the structure:  
wherein R is a functional group and y is an integer greater than or equal to 1.

6. (Withdrawn) The molecule of claim 1, wherein the molecule comprises the structure of compound 3.

In re Application of: Wagener et al.  
Confirmation No: 1454  
Application No.: 10/718,764  
Examiner: PENG, Kuo Liang  
Page - 3 -

7. (Withdrawn) The molecule of claim 1, wherein the molecule comprises at least two polymers each comprising the structure:



wherein the at least two polymers are internally crosslinked via at least one Si-O-Si linkage.

8. (Withdrawn) The molecule of claim 7, wherein the molecule comprises the structure of compound 4.

9. (Withdrawn) The molecule of claim 1, wherein the polymer comprises comprising the structure:



wherein C is a chain-end crosslinking molecule and z is an integer greater than or equal to 1.

10. (Withdrawn) The molecule of claim 9, wherein the chain-end crosslinking molecule is selected from the group consisting of compounds 5 and 6.

11. (Withdrawn) The molecule of claim 10, wherein the polymer comprises the structure of compound 7 R is methoxy.

12. (Withdrawn) The molecule of claim 10, wherein the polymer comprises the structure of compound 10.

13. (Withdrawn) The molecule of claim 9, wherein the molecule comprises at least two polymers comprising the structure:

In re Application of: Wagener et al.

Confirmation No: 1454

Application No.: 10/718,764

Examiner: PENG, Kuo Liang

Page - 4 -



wherein the at least two polymers are internally crosslinked via at least one Si-O-Si linkage and chain-end crosslinked.

14. (Withdrawn) The molecule of claim 13, wherein the molecule comprises the structure of compound 8.

15. (Withdrawn) The molecule of claim 13, wherein the molecule comprises the structure of compound 11.

16. (Withdrawn) A method of making the molecule of claim 1, the method comprising the steps of:

(a) preparing a reaction mixture comprising a carbosiloxane monomer, a carbosilane monomer, and an ADMET catalyst; and

(b) placing the reaction mixture under conditions that result in the production of the molecule of claim 1.

17. (Withdrawn) The method of claim 16, wherein the reaction mixture comprises the carbosilane monomer and the carbosiloxane monomer in a molar ratio of between about 1:5 and 1:100.

18. (Withdrawn) The method of claim 17, wherein the molar ratio is less than about 1:7.

19. (Withdrawn) The method of claim 16, wherein the reaction mixture comprises the monomers and ADMET catalyst in a molar ratio of between about 1:1 and about 1:5000.

In re Application of: Wagener et al.

Confirmation No: 1454

Application No.: 10/718,764

Examiner: PENG, Kuo Liang

Page - 5 -

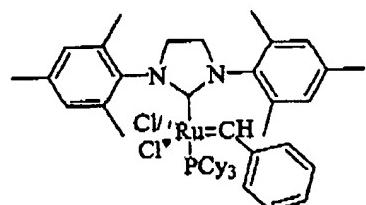
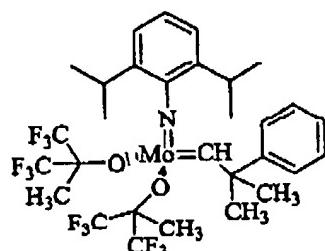
20. (Withdrawn) The method of claim 19, wherein the reaction mixture comprises the monomers and ADMET catalyst in a molar ratio of between about 1200:1 and about 100:1.

21. (Withdrawn) The method of claim 16, wherein the reaction mixture further comprises a chain-end crosslinking molecule.

22. (Withdrawn) The method of claim 21, wherein the reaction mixture comprises the carbosilane monomer, the carbosiloxane monomer, and the chain-end crosslinking molecule in a molar ratio of about 1-100:1-100:1-100.

23. (Withdrawn) The method of claim 21, wherein the carbosilane monomer and the chain-end crosslinking molecule comprise less than 20 mole percent of the reaction mixture.

24. (Withdrawn) The method of claim 16, wherein the catalyst is selected from:



25. (Withdrawn) The method of claim 16, wherin the step (b) comprises placing the reaction mixture under dry conditions.

26. (Withdrawn) The method of claim 16, wherein the step (b) comprises placing the reaction mixture in an argon atmosphere.

27. (Withdrawn) The method of claim 16, wherein the step (b) comprises subjecting the reaction mixture to a vacuum force.

{WP269434:1}

In re Application of: Wagener et al.  
Confirmation No: 1454  
Application No.: 10/718,764  
Examiner: PENG, Kuo Liang  
Page - 6 -

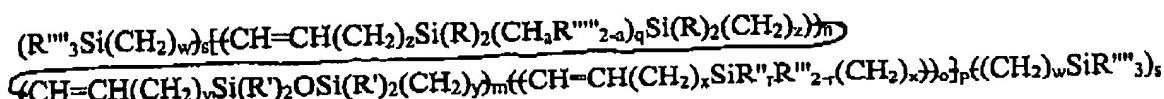
28. (Withdrawn) The method of claim 16, wherein the step (b) comprises adding heat to the reaction mixture.

29. (Withdrawn) The method of claim 25, wherein the step (b) results in the production of a non-cross-linked polymer.

30. (Withdrawn) The method of claim 29, further comprising exposing the non-cross-linked polymer to water to form a cross-linked polymer.

31. (Withdrawn) The method of claim 30, wherein the water is atmospheric moisture.

32. (New) A polymer comprising the structure:



wherein R is a latent reactive group selected from the group consisting of hydrogen, alkoxy, phenoxy, and halogen; R' is selected from the group consisting of C<sub>1</sub> to C<sub>18</sub> alkyl, phenyl, hydrogen, halogen, alkoxy, and phenoxy; R'' is methyl; R''' is selected from the group consisting of methyl, (CH<sub>2</sub>)<sub>x</sub>CH=CH<sub>2</sub> and (CH<sub>2</sub>)<sub>x</sub>CH=, wherein (CH<sub>2</sub>)<sub>x</sub>CH= is a branching site whereby adjacent polymers are cross-linked; R'''' is independently selected from the group consisting of methyl, alkoxy, alkylamino, dialkylamino, and 3,5-(dimethoxymethylsilyl)phenyl; R'''' is C<sub>1</sub> to C<sub>18</sub> alkyl; a is 0 to 2; m and n are independently 1 to 100,000; o is 0 to 1; p is 1 through 100,000; q is 2 to 18; s is 0 to 1; and w, x, y, and z are independently 2 to 16.

In re Application of: Wagener et al.

Confirmation No: 1454

Application No.: 10/718,764

Examiner: PENG, Kuo Liang

Page - 7 -

33. (New) The polymer of claim 9, wherein R<sup>"</sup> is methyl. R<sup>"'</sup> is selected from the group consisting of (CH<sub>2</sub>)<sub>x</sub>CH=CH<sub>2</sub> and (CH<sub>2</sub>)<sub>x</sub>CH=, wherein (CH<sub>2</sub>)<sub>x</sub>CH= is a branching site whereby adjacent polymers are cross-linked; r is 1; and s is 0.

34. (New) The polymer of claim 10, wherein R is methoxy.

35. (New) The polymer of claim 9 wherein R<sup>"'"</sup> is methoxy; o is 0; and s is 1.

36. (New) A polymer comprising the structure:

